

KLIMOV, D. M., Cand Phys-Math Sci -- (diss) "Some problems in the theory of astatic gyroscope in the Cardan suspension." Moscow, 1960. 5 pp; (Moscow Univ im M. V. Lomonosov); 150 copies; price not given; bibliography on page 5 (12 entries); (KL, 17-60, 139)

S/040/60/024/04/23/023
C 111/ C 333

AUTHOR: Klimov, D. M. (Moscow)

TITLE: On the Motion of the Astatic Gyroscope in Cardan Suspension With
dry Friction

PERIODICAL: Prikladnaya matematika i mehanika, 1960, Vol. 24, No. 4,
pp. 771-776

TEXT: Ye. L. Nikolai (Ref.1,2) considered the motion of a balanced gyroscope in Cardan suspension under consideration of constant friction torques in the axes of suspension. The author considers an astatic gyroscope in Cardan suspension on a fixed base; he assumes that the forces of friction are proportional to the normal components of the dynamic reactions in the axes. The investigation of the equations of motion is carried out in the plane of angular velocities used by Nikolai. Under absence of gravitational force this plane is decomposed into six domains, where the motion of the gyroscope is described in every domain by linear differential equations so that the image point moves in every domain on deformed logarithmic spirals. Under consideration of the gravitation the relations become more complicated; the author only gives first approximations (for small angles and velocities). A large

✓B

Card 1/2

S/040/60/024/04/23/023
C 111/ C 333

VB

part of the results has already been announced by the author in
(Ref.3). He thanks A. Yu. Ishlinsky for the guidance of the paper.
There are 4 Soviet references.

SUBMITTED: October 31, 1959

Card 2/2

KLDMOV, D. M. (Candidate of Physical and Mathematical Sciences) and SLEZKIN, L. N.

"Use of asymptotic methods in solving problems of the motion of an astatic gyroscope in gimbol suspension"

report presented at the Scientific-technical Conference on Modern Gyroscope Technology Ministry of Higher and Secondary Special Education RSFSR, held at the Leningrad Institute of Precision Mechanics and Optics, 20-24 November 1962

(Izv. vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 6, no. 2, 1963)

13.2576

S/179/62/000/005/009/012
E191/E135

AUTHOR: Klimov, D.M. (Moscow)

TITLE: The effect of the torque about the rotor axis on the drift of a gyroscope suspended by a gimbal mounting on a moving base

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no. 5, 1962, 134-136.

TEXT: The motion is considered of a gyroscope when suspended in a gimbal mounted on a moving base. The gyroscope rotor is motor driven. In the steady state motion, the motor maintains a constant angular velocity of the rotor. The gyroscope c.g. coincides with the geometric centre of the suspension, the gimbal rings are statically and dynamically balanced and friction in the suspension hinges is absent. Different coordinate frames are associated with the moving base and the various elements of the suspension. It is shown that, from a given motion of the base, it is possible to determine by means of kinematic relationships the motion of the gimbal rings, provided the angular momentum of the

Card 1/2

The effect of the torque about the ... S/179/62/000/005/009/012
E191/E135

gyroscope rotor does not change its position in space. By using the Euler equations for the gimbal rings and the rotor, it is shown that a moment causing a drift is the result of variations in the torque about the rotor axis. The case is considered when the base oscillates about a single axis. Different expressions are derived for rotors driven by induction motors or synchronous motors. It is shown that oscillations at a frequency near the frequency of natural oscillations of the rotor relative to the inner ring may cause a substantial drift of the gyroscope. The case of a "conical" motion of the outer ring is also considered.

There are 2 figures.

SUBMITTED: June 29, 1962

Card 2/2

L 10316-63

Po-4/Pq-4--BC

ACCESSION NR: AP3003453

EMT(d)/EDS--AEADC/AFTTC/AFMDC/APOC/ASD/SSD--Pg-4/Pk-4/P1-4/

8/0179/63/000/003/0045/0050

76

AUTHOR: Klimov, D. M. (Moscow); Slenkin, L. N. (Moscow)

TITLE: Application of asymptotic methods to the solution of problems concerning
the motion of an astatic gyroscope in gimbal suspensionSOURCE: AN SSSR. Izv. Otdel. tekhn. nauk. Mekhanika i mashinostroyeniye, no. 3,
1963, 45-50TOPIC TAGS: application of asymptotic methods, solution of differential equations,
gyroscope motionABSTRACT: A mechanical system described by the nonlinear differential equations
given in the Enclosure has been studied. The equations are solved by the
Bogolyubov-Mitropol'skiy asymptotic method for a case in which the characteristic
determinant of a nonperturbed system has two conjugate pure imaginary roots and
two zero roots with linear elementary divisors. Solutions x and y are determined
as series in powers of a small parameter for the nonresonance case. A method is

Card 1/3

L 10316-61
ACCESSION NR: AP5003463

O

described for obtaining first-approximation equations, on the basis of which solutions of the system of differential equations are obtained. By analogous procedure, equations of higher approximations can be derived and solutions by corresponding approximations established. As an example, the motion of an astatic gyroscope in a gimbal (Cardan) suspension with dynamically unbalanced rotor is studied, with small dry and viscous frictions of the gimbal axes taken into account. The system of second-order differential equations describing such a motion is written in a dimensionless form and then, after certain transformations, reduced to a system of equations similar to those given in the Enclosure. On the basis of the system of first-approximation equations, peculiarities of gyroscope motion are analyzed. Orig. art. has: 20 formulas.

ASSOCIATION: none

SUBMITTED: 01Feb63 DATE ACQ: 24Jul63

ENCL: 01

SUB CODE: 00 NO REF SOW: 003

OTHER: 000

Card 2/3

L 10316-63
ACCESSION NR: AP 3003453

ENCLOSURE: 01

O

$$\ddot{x} + \dot{y} = \epsilon f_1(vt, \ddot{x}, \ddot{y}, \dot{x}, \dot{y}, x, y),$$

$$\ddot{y} - \dot{x} = \epsilon f_2(vt, \ddot{x}, \ddot{y}, \dot{x}, \dot{y}, x, y) \quad (1)$$

where ϵ is a small positive parameter, and f_1 and f_2 are periodic functions with respect to vt with period 2π .

Card 3/3

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

KLIMOV, D.M. (Moskva)

Dynamics of gimbals. Izv,AN SSSR. Mekh. i mashinostr. no.4:7-9
Jl-Ag '63. (MIRA 17:4)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

KLIMOV, D.M.

AID Kr. 990-6 14 June

SCIENTIFIC-TECHNICAL CONFERENCE ON MODERN GYROSCOPE TECHNOLOGY (USSR)

Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 6, no. 2, 1963.
156-158.

8/146/63/008/002/010/010

The Fourth Conference on Gyroscope Technology, sponsored by the Ministry of Higher and Secondary Special Education RSFSR, was held at the Leningrad Institute of Precision Mechanics and Optics from 20 to 24 November 1962. The conference was attended by representatives from 93 organizations in 30 Soviet cities, including educational establishments, scientific research institutes, design bureaus, and industrial concerns. The following are some of the topics covered in the 92 papers presented and discussed at the conference. Vibrations of a gyroscope pendulum with a movable suspension in a nonuniform gravitational field: M. Z. Litvin-Sedov, Senior Scientific Worker; improving dynamic characteristics of some gyro instruments and devices: A. V. Reprikov, Docent, Candidate of Technical Sciences; some problems of the dynamics of a gyroscope with an electric drive installed in a gimbol suspension: S. A.

Card 1/3

AID Nr. 990-6 14 June

SCIENTIFIC-TECHNICAL CONFERENCE (cont'd)

8/146/63/006/002/010/010

Kharlamov, Engineer; problems of the theory of the inertial method for measuring aircraft acceleration: I. I. Pomykayev, Docent, Candidate of Technical Sciences; determining the drift of a floated-type integrating gyroscope without the use of a dynamic stand: G. A. Sliomyanskiy, Docent, Candidate of Technical Sciences; natural damping of nutational vibrations of a gyroscope: N. V. Gussev, Engineer; motion of a not quite symmetrical gyroscope pendulum with vertically movable support: A. N. Borisova, Aspirant; gyroscope-type inclinometer for surveying vertical freezing wells: V. A. Sinitsyn, Candidate of Technical Sciences; effect of joints between channels in triaxial gyro-stabilized platform: L. N. Slezkin, Engineer; theoretical proposal for the possible design of a generalized gyro instrument: M. M. Bogdanovich, Docent, Candidate of Technical Sciences; problem of drift in a power-type triaxial gyro stabilizer: V. N. Karpov, Engineer; methods of modeling random disturbances in gyro systems: S. S. Shishman, Senior Engineer; method of noise functions for investigating a system subjected to random

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AID Nr. 990-6 14 June

SCIENTIFIC-TECHNICAL CONFERENCE (Cont'd)

8/146/63/006/002/010/010

signals; G. P. Molotkov, Docent, Candidate of Technical Sciences; drifts in a gyro-stabilized platform as a result of the effect of cross joints under determined and random disturbances; B. I. Nazarov, Docent, Candidate of Technical Sciences; stability and natural oscillations in inhomogeneously rigid gyro systems with backlash under external influences; S. A. Chernikov; methods of designing a gyro vertical with automatic latitude and course corrections; A. V. Til', Candidate of Technical Sciences; use of asymptotic methods in solving problems of the motion of an astatic gyroscope in gimbol suspension; D. M. Klimov, Candidate of Physical and Mathematical Sciences, and L. N. Sleskin; theory of aperiodic gyro pendula; V. S. Mochalin, Docent, Candidate of Technical Sciences; and selecting basic parameters of course gyros by using nomograms; V. P. Demidenko, Engineer. (AS)

Card 3/3

KLIMOV, D.M. (Moskva); SLEZKIN, L.N. (Moskva)

Application of asymptotic methods to the solution of problems on
the motion of an astatic gyroscope in gimbals. Izv.AN SSSR.-
Otd.tekh.nauk.Mekh.i mashinostr. no.3:45-50 My-Je '63.

(MIRA 16:8)

(Gyroscope)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

KLIMOV, D.M. (Moskva)

Investigating the drifts of an astatic gyroscope in gimbals on a
swinging base. Izv.AN SSSR.Mekh. i mashinostr. no.5:11-16 S-0
'63. (MIRA 16:12)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

NIKOLAI, Yevgeniy Leopol'dovich. Prinimal uchastiye KLIMOV,D.M.; KREMENTULU, V.V., red.

[Gyroscope in gimbal] Giroskop v kardanovom podvese.
Izd.2. S predislovim A.IU.Ishlinskogo i s dopolneniiami D.M.Klimova. Moskva, Izd-vo "Nauka," 1964. 136 p.
(MIRA 17:5)

KLINOV, D. N. (Moscow)

"The conditions of imperturbability of a gyroscope frame"

report presented at the 2nd All-Union Congress on Theoretical
and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

ACCESSION NR: AP4027595

S/0010/64/028/002/0364/0366

AUTHOR: Klimov, D. M. (Moscow)

TITLE: Stability of motion of an unperturbable physical pendulum

SOURCE: Prikladnaya matematika i mehanika, v. 28, no. 2, 1964, 364-366

TOPIC TAGS: motion stability, pendulum, unperturbable physical pendulum, suspension point, gravitational attraction, geocentric vertical, Darboux triangle

ABSTRACT: The author studies the motion of a physical pendulum whose point of suspension O moves along the surface of a fixed sphere S of radius R encircling the earth. He assumes that the forces of attraction of the pendulum to the earth are reduced to a single force mg applied at the center of gravity G (see Fig. 1 on the Enclosure) and are directed along the geocentric vertical (normal to the surface of the sphere). The distance OG is denoted by ℓ . He studies the motion of the pendulum in the allowable moving system of coordinates $\xi\eta\xi$ with center at O, and introduces the Darboux triangle x_0, y_0, z_0 . Its x_0 axis is directed along the vector V of absolute velocity of the suspension point O, the z_0 axis—along the

Cord 1/62

ACCESSION NR: AP4027595

normal to the sphere. The axes x , y , z are referred to the pendulum in such a way that the direction of the z axis coincides with the direction of the line OO' . The position of the pendulum with respect to the Darboux triangle is determined by the angles γ , θ , and φ . The author assumes that the moments of inertia of the pendulum with respect to the x and y axes are the principal ones and are equal to mLR ; the moment of inertia of the pendulum with respect to the z axis is denoted by C . The projections of angular velocity ω_0 of the Darboux triangle on the axis of the sphere have the form

$$\rho_0 = 0, \quad r_0 = \frac{v(0)}{R}, \quad r_0 = r_0(0) \quad (1)$$

The conditions the author derives are

$$mg^2 - Cg_0^2 - mLRr_0^2 > 0, \quad mg^2 - mLg_0^2 - mLr_0^2 > 0 \quad (2)$$

Orig. art. has: 12 formulae and 3 figures.

ASSOCIATION: none

SUBMITTED: 08Oct63

DATE ACQ: 28Apr64

ENCL: CL

SUB CODE: AT
Card 2/3

NO REP Sov: 003

OTHER: 000

ACCESSION NR: AP4043897

8/0179/64/000/004/0142/0143

AUTHOR: Klimov, D. M. (Moscow)

TITLE: pendulum motion with heavy damping on a vibrating base

SOURCE: AN SSSR. Izvestiya. Mekhanika i mashinostroyeniye, no. 4, 1964, 143-143

TOPIC TAGS: Pendulum, pendulum motion, pendulum rotation, pendulum damping

ABSTRACT: The motion of a pendulum with a vertical axis is considered, and it is proven that vibration of the base causes slow one-sided rotation of the pendulum. The mean angular velocity is then calculated. A three-dimensional system of coordinates is set up with one coordinate along the vertical axis of rotation of the pendulum. The equation of motion of the pendulum is:

$$A \frac{d^2\alpha}{dt^2} + \lambda \frac{d\alpha}{dt} = mI\dot{\omega}_1 \sin \alpha - mI\dot{\omega}_1 \cos \alpha \quad (1)$$

By various substitutions and transformations it is found that:

$$\omega_1 \omega^2/g = \omega_1, \quad \omega^2/g = \omega_1, \quad mg\sin\alpha = p_1, \quad mg\cos\alpha = p_2 \quad (2)$$

$$m_1 = \frac{\dot{p}_1 \cos \alpha_1 \sin \theta + A \omega (p_1 \sin \alpha_1 - p_2 \cos \alpha_1 \cos \theta)}{(\omega^2 + A^2)}$$

Card 1/3

$$\text{ACCESSION NR: AP4043897} \quad m_0 = \frac{4\mu p_1 \cos \alpha_0 \sin \theta - A(p_1 \sin \alpha_0 - p_1 \cos \alpha_0 - \cos \theta)}{\omega (A^2 \omega^2 + A^2)}$$

It is assumed that the vibration frequency is high and p_1 and p_2 are low, evolving:

$$2f_0 = \langle 2((p_1 \cos \alpha_0 + p_1 \sin \alpha_0 \cos \theta) \sin \omega t + p_1 \sin \alpha_0 \sin \theta \cos \omega t) (m_1 \sin \omega t + m_2 \cos \omega t + C_1 + C_2 \omega^2) \rangle = m_1 (p_1 \cos \alpha_0 + p_1 \sin \alpha_0 \cos \theta) + m_2 p_1 \sin \alpha_0 \sin \theta \quad (3)$$

Finally, taking into account the last two equations, the formula for the mean angular velocity of a pendulum may be expressed as follows:

$$\langle \frac{d\alpha}{dt} \rangle = \frac{A(p_1' - p_1) \sin 2\omega}{4\omega(A^2 \omega^2 + A^2)} + \frac{A p_1 p_1 \cos 2\omega \cos \theta}{2\omega(A^2 \omega^2 + A^2)} = \frac{p_1 p_1 \sin \theta}{2\omega(A^2 \omega^2 + A^2)} \quad (4)$$

It may be seen that vibration of the base causes one-sided rotation of the pendulum. In particular, when the moment of inertia of the pendulum is sufficiently low, the pendulum rotates at constant angular velocity: $\langle \frac{d\alpha}{dt} \rangle \approx - \frac{p_1 p_1 \sin \theta}{2\omega^2}$

(5)

Orig. art. has: 1 figure and 17 equations.

Card 2/3

ACCESSION NR: AP4043897

ASSOCIATION: none

SUBMITTED: 18Mar64

BNGL: .00

SUB CODE: ME

NO REF Sov: 001

OTHER: 000

Card 3/3

ACCESSION NR: AP4040576

S/0040/64/028/003/0511/0513

AUTHOR: Klimov, D. M. (Moscow)

TITLE: Conditions of imperturbability of a gyroscopic frame

SOURCE: Prikladnaya matematika i mehanika, v. 28, no. 3, 1964, 511-513

TOPIC TAGS: imperturbability, gyroscopic frame, precession theory, gyroscope suspension

ABSTRACT: The author studies the motion of a gyroscopic frame surrounded by a spherical shell and suspended in fluid without friction. He assumes that the forces of attraction of the frame to the earth are taken as a unit force applied to the center of gravity of the frame and directed along the normal to the sphere and that the center of support moves arbitrarily on the surface of a fixed sphere surrounding the earth. He shows that it is necessary and sufficient that the moment of momentum of the system with respect to the point of support in absolute motion be equal to zero in order for the following to be true: the z axis, passing through the center of support and the center of gravity of the gyroframe is directed along the geocentric vertical (normal to the sphere) with arbitrary motion of the support point on the sphere. He obtains conditions for imperturbability in the framework of

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ACCESSION NR: AP4040576

precession theory and formulates conditions for imperturbability of a gyro-horizon-
compass from which the former conditions are derived. Orig. art. has: 12 formulas
and 1 figure.

ASSOCIATION: none

SUBMITTED: 19Dec63

DATE ACQ: 19Jun64

ENCL: 00

SUB CODE: ME, NG

NO REP Sov: 003

OTHER: 000

Card 2/2

L 40795-65 EEO-2/EWT(4)/TSS-2/EEC(k)-2/ENG(+)/EED-2/EWA(c) 11-4/Po-4/Po-5/
-1-3 Pk-4 Pl-4 IJP(c) BC

ACCESSION NR: AP5010194 UR/0373/65/000/001/0163/0165

AUTHORS: Klimov, D. M. (Moscow); Rabinovich, Yu. I. (Moscow)

TITLE: On the effect of corrections on drift of a universal suspension gyroscope
fixed on movable base

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 1, 1965, 163-165

TOPIC TAGS: gyroscope, Cardan suspension, gyroscope motion, equation of motion,
inertial system

ABSTRACT: The drift rate of a gyroscope around the external axes was determined
analytically, including correction effects that would insure that the Cardan
suspension ring remained perpendicular. The gyroscope is assumed to remain on a
movable base and is provided with a system of corrections. Also, frictional
forces are neglected, and the weight of the suspension ring is assumed to be small.
The positions of the Cardan ring and the base are determined by β_1 and δ (see Fig.
on the Enclosure). The equations of internal and external ring equilibrium are
derived, and the drift rate is defined by

$$\omega = - \frac{M \dot{\psi}}{H} \cdot$$

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ACCESSION NR: AP5010194

It is then assumed that the gyroscope base fluctuates according to the law

$$\theta = a \sin(\omega t + \phi), \quad \theta_1 = b \sin \omega_1 t,$$

and that the corrections are of a relay type. This leads to the expression for the gyroscope drift

$$(\alpha) = -\frac{2}{\pi} \cdot \frac{am}{H} \cos \theta.$$

To include the effects of the position correction, the motions of the rotor axes are included. This leads to the expression for the drift rate

$$(\dot{\alpha}) = -r^{1/2} \sin \theta - r \sqrt{1 - r^2} \sin \omega_1 t$$

Numerical examples are given as illustrations. Orig. art. has: 21 equations and 3 figures.

ASSOCIATION: none

SUBMITTED: 02Nov68

ENCL: 01

SUB CODE: M2

NO REF Sov: 002

OTHER: 000

Card 2/3

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

L 49795-65

ACCESSION NR: AP5010194

ENCLOSURE: 01

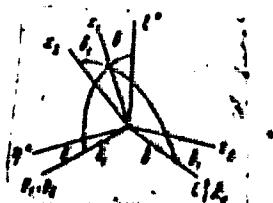


Fig. 2

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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

ACC NR: AP6002319

SOURCE CODE: UR/0373/65/000/006/0049/0052

AUTHORS: Klimov, D. M. (Moscow); Rabinovich, Yu. I. (Moscow)

ORG: none

TITLE: On kinematic errors of inertial navigation systems 9, 44, 55

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 6, 1965, 49-52

TOPIC TAGS: inertial navigation, error analysis, inertial guidance gyroscope, stabilized platform

ABSTRACT: The motion of an orthogonal trihedron is considered along whose axes gauges are placed to measure angular velocity projections. The analysis consists of estimating the errors existing in such a measurement. The coordinates of the trihedron are given by 575 relative to a moving set of coordinates 5 "7 "5 " (see Fig. 1). The angles λ , ϕ and χ are defined by

$$\begin{aligned} \varphi &= p \cos \chi + r \sin \chi \\ x' &= q + (r \sin \chi - p \cos \chi) \cos \varphi \\ \lambda &= (r \cos \chi - p \sin \chi) \cos \varphi \end{aligned}$$

where p , q , r are the projections of the trihedron angular velocities on the axes. The errors in p , q , r are assumed to be small, given by

Card 1/3

47
44
B

L-13302-46

ACC NR AP6002319

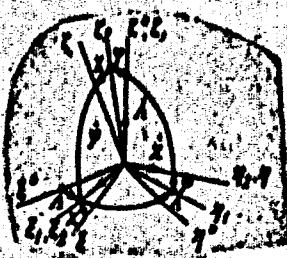


Fig. 1.

$$p = p_1 + \delta_1, \quad q = q_1 + \delta_2, \quad r = r_1 + \delta_3$$

These are substituted in the above equations and integrated to yield expressions for the cumulative errors for the velocity projections

$$\begin{aligned} X &= \delta_1 \cos(\xi, \xi') + \delta_2 \cos(\eta, \xi') + \delta_3 \cos(\zeta, \xi') \\ Y &= \delta_1 \cos(\xi, \eta') + \delta_2 \cos(\eta, \eta') + \delta_3 \cos(\zeta, \eta') \end{aligned}$$

This analysis is then applied to the case of a gyroscopic platform in an inertial navigation system stabilised by three two-stage gyroscopes. It is shown that the

Card 2/3

L 13342-66

ACC NR: AP6002319

3

error in the location and direction of the North in such a system is not cumulative but oscillatory in nature when the error of is a drift in the platform angular velocity. A similar conclusion is reached with the error analysis of the A. Yu. Ishlinsky inertial system (PM, 1957, t. 21, vyp. 6). In conclusion the authors thank I. D. Blyumin, L. N. Sleskin, and Yu. K. Zhdanov for evaluating this work.
Orig. art. has: 15 equations and 2 figures.

SUB CODE: 17/1 SUBJ DATE: 16Jul65/ ORIG REF: 005

Card 3/3 FW

KLIMOV, D.M. (Moskva); RABINOVICH, Yu.I. (Moskva)

Kinematic errors of inertial navigation systems. Izv. AN
SSSR. Mekh. no. 6:49-52 N-D '65. (MIRA 18:12)

L 39604-66 E/T(d)/PS-2/EIC(k)-2 BC/GD-1

ACC NR: AP6011124

SOURCE CODE: UR/0424/66/000/001/0003/0005

AUTHORS: Klimov, D. M. (Moscow); Potapenko, V. A. (Moscow)

ORG: none

TITLE: Drift of a gyroscope in a Cardan suspension on a movable base

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 1, 1966, 3-5

TOPIC TAGS: gyroscope, gyroscope motion, mathematical analysis, inertial axis

ABSTRACT: The drift of a friction-free gyroscope in a Cardan suspension is analyzed. As shown in Fig. 1, a small gyroscope is connected to the external ring of the main gyroscope. A mathematical analysis of the combined motion shows that the two drift rates, $\langle \alpha' \rangle$ around the external axis and $\langle \beta' \rangle$ around the internal axis, are expressed by

$$\langle \alpha' \rangle = \frac{M_{\text{ext}}}{2I \cos^2 \delta_1} \sin(\delta - \alpha_1), \quad \langle \beta' \rangle = 0.$$

The brackets in these expressions denote time averages. A more general analysis indicates that the motion of the gyroscope platform results in a rotation around the external axis relative to inertial space.

Card 1/2

I. 39804-66
ACC NR. AP6011124

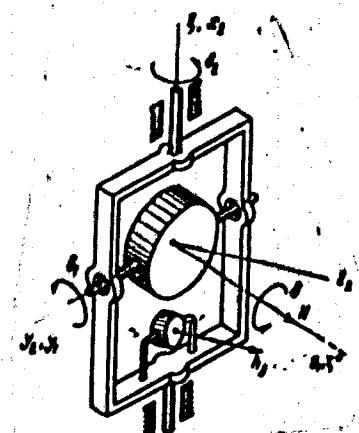


FIG. 1.

Orig. art. has: 13 equations and 4 figures.

SUB CODE: 17, 20/ SUBM DATE: 13Aug65/ ORIG REF: 002

Card 2/2 MLP

I-10998-64

ACC NR: AP6001979

SOURCE CODE: UR/0125/65/000/003/0071/002

AUTHOR: Veshenevskiy, S. N.; Voronostadik, B. B.; Ons'kov, F. S.; El'kin, D. Yu.;
Maslennikov, L. V.; Pashkov, M. V.; Petrov, I. I.; Sokolov, I. I.; Stepanov, Yu. V.;
Turovskaya, P. O.; Khochuyan, A. P.; Tseitin, V. S.; Shteyn, I. M.

ORG: none

TITLE: Professor N. V. Urnov

SOURCE: Elektricheskvo, no. 3, 1965, 91

TOPIC TAGS: scientific personnel, academic personnel

ABSTRACT: Konstantin Vasilevich Urnov died on 11 December 1964 after a serious illness. He was a distinguished scientist and one of the oldest electro-polygraphists. He was born in 1907 and graduated from the Ivanovskiy Polytechnic Institute in 1929, after which he continued to work on the Board of Electric Installations for the next 25 years. His outstanding contribution was to relate successfully the activities of industry with those of the higher educational institutions. His name is closely linked to the development of domestic polygraphic machinery. He was imaginative, creative and bold. Since 1935 he was also engaged in teaching and scientific research work at the Moscow Power Institute and the Moscow Polygraphic Institute where he set up a course on "Electric Drives and Automation of Polygraphic Machines". He is the author of over 30 inventions and published works, including one book. He was a scientist-communist, a man of great knowledge, a good colleague and friend. Orig. art. has: 1 figure. [PPRS]

SUB CODE: 05 / SUBM. DATE: none

Card 1/1

UDC: 621.313.1/3

VESHENEVSKIY, S.N.; VORONETSKIY, B.B.; GUS'KOV, P.S.; KLINOV, D.Yu.;
MASLENNIKOV, L.V.; PASHKOV, M.V.; PETROV, I.I.; SOKOLOV, T.I.;
STEPANOV, Yu.V.; TUROVSKAYA, P.G.; KHECHUMAN, A.P.; TSEIN, V.S.;
SHTEYN, I.M.

Professor Konstantin Vasil'evich Urnov, 1907-1964; obituary.
Elektrичество no.3:91 Mr '65. (MIRA 18:6)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

REBANOV, D. Yu.

Dissertation: "Typographic Molds with High-Elastic Coatings." Cand Tech Sci, Moscow
Polygraphy Inst, 7 Jun 54. Vechernaya Moskva, Moscow, 27 May 54.

SO: SUW 284, 26 Nov 1954

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

KLIMOV, E.V.

Constructing the electric power transmission line for the
longitudinal power supply to the Bataysk-Starominskaya Line.
Transp. stroi. 15 no.6:11-12 Je '65. (MIRA 18:12)

1. Starshiy inzhener energomontazhnogo poyezda No.6 tresta
Transenergomontazh.

KLIMOV, F.

Protective work in industrial sections of cities. Posh.delo 4
no.11:3-4 N '58. (MIRA 11:12)

1. Starshiy inspektor Upravleniya posharnoy okhrany Stalingrad-
skogo obispolkoma. (Fire prevention)

KLIMOV, P.

KLIMOV, P. (Stalingrad)

Using water supply from artesian and bore wells for fire
extinction. Posh.delo 3 no.12:14 D '57. (MIRA 10:12)
(Stalingrad Province--Fire extinction--Water supply)

KLIMOV, F. (Volgograd)

Simplified formula for determining the capacity of
pipes and fire hose. Posh.delo 8 no.11:20 N '62.

(MIRA 15:11)

(Hose--Testing)

1. Klimov, F.S.
2. USSR (600)
4. Harvesting Machinery
7. Reaper model ZhK.-21 for harvesting hemp. Eng. Sel'khozmashina no 12, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

KLIMOV, O.

Under new conditions, Sov. profsoiwy 6 no.4; 36-41 Ap '58.
(MIRA 11:5)

1. Predsedatel' L'vovskogo oblastnogo soveta profsoyuzov.
(Lvov Province--Trade unions)

KLEM, GUMREY

Berliner Kreml. Köln, Kiepenheuer und Witsch, 1951. 446 p. Translation from the Russian: "Berlinskiy Kreml".

N/5
917.200
.K621

KLIMOV, G.

27252. KLIMOV, G.-- 127 tsentnerov vinograda s gektara. Opyt zvena geroya sots truda a. d. kachurovskogo i brigady ordenonostsa p. s. zakrevskogo. Vinodelie i vinogradarstvo moldavii, 1949, No. 4, s. 33-38.

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

KLIMOV, G. B., Eng.

Agricultural Machinery

Evaluation of the work capacity of agricultural machinery by usage coefficients.
Sel'khozmashina no. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1928, Uncl.

KLIMOV, O. B.

Rural Electrification

Successes in electrification of the collective farm. Kolkh.proisv. 12 no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 [1977], Unc1.

KLIMOV, G.B., inshener; BULYGIN, P.S., inshener.

Results of testing the PR-5-40 plow for subsoiling. Sel'mkhormashina
no.4:10-13 Ap '55.
(MIA 8:5)

1. Povolzhskaya MIS.
(Plows)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

VIGAIOK, S.G.; KLIMOV, G.I. (Penza)

Case of a prolonged stay of a foreign body (coin) in the duodenal
bulb. Vest. rent. i rad. 39 no.5:61 S-0 '64.

(MIRA 18:3)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

BASKOV, Ye.A.; KLIMOV, O.I.; LIBROVICH, V.L.

Genetic type of Lower Cambrian phosphate manifestations in the
Yudoma Valley (Eastern Siberia), Min. syr'e no.10:51-54 '64.
(MIRA 18:3)

DALASHOV, N.O., podpolkovnik meditsinskoy sluzhby; KUDOV, O.I.,
kapitan meditsinskoy sluzhby

Cases of injury caused by nitric oxide. Voen.-med. zhur.
no.2 1977-78 '69.
(XIMA 16411)

KLIMOV, G. M.

Sheep - Kazakhstan

Raising fine-wooled and semifine-wooled sheep in the new districts of Kazakhstan. Sots. zhiv., 14, No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952 Uncl.

KLYUCHEROV, A.P.; AKSEL'ROD, L.M.; GIRITSKIKH, V.F.; KLINOV, G.N.

Improvement of thermal processes in mazut-operated open hearth furnaces. Metallurg 9 no.10:16-19 O '64 (MIRA 18:1)

ALIYEV, G.A. (Moskva); BUSLENKO, N.P. (Moskva); KLYMOV, G.P. (Moskva); NAZARENKO, A.I. (Moskva); Prinimali uchastiye: POLYAKOVA, N.A.; DATSKEVICH, R.T.; GAYDABUKA, L.A.

Modeling of the operation of an automated furnace machine for welding pipes. Probl. kib. no.9:211-240 '63. (MIRA 17:10)

1. Elektrostal'skiy zavod tsyazhelogo mashinostroyeniya (for Polyakova, Datskevich, Gaydabuka).

KLIMOV, GRIGORIY PETROVICH

The Terror Machine; the inside story of the Soviet administration in Germany, By Gregory Klimov, translated from the German by H. C. Stevens, introduced by Edward Crankshaw and Ernst Reuter. London, Faber and Faber [1953].

400 p.

Translation of original Russian: Berlinskiy Kreml'

KLEOV, O.P. (Moskva); ALIYEV, G.A. (Moskva)

Solving one problem of the queueing theory on a computer using
the Monte Carlo method. Zhur. vych. mat. i mat. fiz. 1 no.5:93.
935 S.S.O '61.

(HIRM 14:10)

(Cybernetics)
(Electronic digital computers)

16.6800

38511

S/044/62/000/005/065/072
C111/C444

AUTHOR:

Klimov, G. P.

TITLE:

The modelling of a certain class of mass service systems
on digital computing machines

PERIODICAL:

Referativnyj zhurnal, Matematika, no. 5, 1962, 73,
abstract 5V428. ("Zh. vychisl. matem. i matem. fiz.", 1961,
1, no. 5, 935-940)

TEXT:

Considered is the synthesis of complicated mass service systems out of elementary ones (under the aspect of the possibility of a more simple programming for computing machines). As elementary systems one has chosen: 1.) a system of parallel instruments, 2.) a system of r succeeding instruments, 3.) a system of two instruments, - the main instrument and the auxiliary instrument -, which contain the flows of calls of different types; the calls of the second type which were served at the auxiliary instrument come together with the calls of the first type for the servance at the main instrument. In front of each of the instruments there are storage batteries of bounded capacity. Programs describing the working of these elementary systems are put down in the operator form. One introduces the operation of the superposition of

Card 1/2

The modelling of a certain class of ... S/044/62/000/005/065/072
systems which consists of the fact that an arbitrary instrument out
of an arbitrary elementary system is substituted by one of the above
described elementary systems. Advices for the put up of the program
which describes the working of a system obtained by superposition, are
given. It is affirmed that by repeated application of superposition one
can obtain very general mass service systems.

[Abstracter's note: Complete translation.]

Card 2/2

8/877/62/001/000/003/003
D201/D308

AUTHORS:

Aliyev, G.A. and Klimov, G.P.

TITLE:

Principles of construction of the mathematical model of the problem of mass handling theory (on the example of simulating the technological process of the cold finishing section of an automated furnace pipe-welding mill)

SOURCE:

Akademiya nauk Azerbaydzhanskoy SSR. Vychislitel'nyy tsentr. Trudy, v. 1, 1962, 28-37

TEXT:

The authors consider a formalized production process of pipe welding, modelled as a system of mass service. The above problem was solved by the authors on the computer "Strela" at the Computer Center of MGU, using the Monte-Carlo method. The operations of the cold finishing section are described together with the block diagram of the algorithm of mathematical modelling of the process and description of problems arising in programming. The results obtained from the mathematical model show that the characteristics

Card 1/2

Principles of construction ...

S/877/62/001/000/003/003
D201/U308

of the mill used by the authors are not suitable. There are 4 figures.

Card 2/2

ALIYEV, G.A.; KLIMOV, G.P.

Principles of designing a mathematical model of the theory
of mass servicing. Trudy Vych. tsentra AN Azerb. SSR
1:28-37 '62.

(Automatic control)
(Pipe mills) (MIRA 15:11)

LYUSTERNIK, L.A., red.; KUDMOV, G.P., red.; TSYGANKIN, A.P., red.;
USHAKOV, V.B., doktor tekhn. nauk, red.; BARANOVA, Z.S.,
izh., red.izd-va; GORDEYEVA, L.P., tekhn. red.

[Computer mathematics and computer engineering] Voprosy vy-
chislitel'noi matematiki i vychislitel'noi tekhniki. Moskva,
Mashgis, 1963. 431 p. (MIRA 16:6)

1. Chlen-korrespondent Akademii nauk SSSR (for Lyusternik).
(Electronic computers)

L 51-13-65 EWT(1) EEC(b)-2/EWA(h) PM-4/Po-4 Pg-4 Pe-4 Pcb/Pi-4
ACCESSION #: AT5010217

UR/VM 3/65/000/003/0434/0440

AUTHOR: Klimov, G. P.

TITLE: Reliability of a system of n spare instruments

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 3, 1965.
Vychislitel'nyye metody i programmirovaniye (Computing methods and programming),
426-440

TOPIC TAGS: system reliability, spare part supply, probability theory

ABSTRACT: The article deals with a system consisting of n identical instruments. The time of operation of any instrument prior to the instant of its failure is a random quantity with specified distribution function. After failure, the instrument is repaired and the time of its repair is a random quantity dependent on the state of other instruments, and having an exponential distribution function. At each instant of time only one instrument is in operation, and if some instrument is in good order, and one of the remaining ones is in good working order, the last immediately goes into operation. The problem is to find the laws governing the distribution of the first instant of failure, and also the intervals between the successive instants of failure, under the condition that at the initial instant of

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L 53043-65

ACCESSION NR: A15010217

time all the instruments were in good working order, are the successive instants of failure, $t_1^{(n)}, t_2^{(n)}, \dots, t_k^{(n)}, \dots$, $t_k^{(n)} = t_k^{(n)}, t_{k-1}^{(n)}, \dots, k > 1$, and

$$F_n(t) = P(t_i^{(n)} < t),$$

$$G_n(t) = P(t_i^{(n)} < t), k > 1,$$

(where P is the symbol for the probability), and furthermore $u_n(s)$ and $v_n(s)$ are the Laplace-Stieltjes transforms of $F_n(t)$ and $G_n(t)$, then the main result of the paper consists in the following theorem:

$$u_n(s) = \frac{1}{H_n(s)}$$

$$v_n(s) = \frac{s^n H_{n-1}(s)}{s + H_n(s)}$$

where

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L 53043-65

ACCESSION NR: A53010217

$$H_0(s) = 1, H_n(s) = 1 + \sum_{k=1}^n C_k a_0 a_1 \dots a_{k-1}, n > 1,$$

$$a_k = a_k(s) = \frac{1}{s(s+k)} - 1,.$$

and $\alpha(s)$ is the Laplace-Stieltjes transformation of the function $A(t)$. The theorem is proved rigorously by probability theory. Orig. art. has: 13 formulas.

ASSOCIATION: Vychislitel'nyy tsentr Moskovskogo universiteta (Computation Center,
Moscow University)

SUBMITTED: 00

ENCL: 00

SUB CODE: ME, 1E

MR REF Sov: 001

OTHER: 002

84.0
Card 3/3

RODE, Aleksandr Aleksandrovich; IVANOV, Yevgeniy Nikolayevich;
KLIMOV, Georgiy Vladimirovich; KURBATSKIY, O.M., nauchn.
red.; ZLOBINA, Z.P., red.

[Automatic fire extinguishing systems] Avtomaticheskie
ustanovki dlia tusheniia pozharov. Moskva, Stroizdat,
1965. 186 p. (MIRA 18;7)

KLIMOV, I., prof., doktor tekhn.nauk

Improve the work of societies. MTO 2 no.1:22 Ja '60.
(MIRA 13:5)

1. Predsedatel' oblastnogo soveta Nauchno-tehnicheskogo
obshchestva, g.dor'kiy.
(Research, Industrial)

LEREDEV, N., prof., doktor tekhn.nauk; KLIMOV, I., prof., doktor tekhn.
nauk

Strengthen the connection of scientific student societies with
organizations of scientific technological societies. MTO 2 no.6:
55-56 Je '60. (MIRA 14:2)

1. Predsedatel' Gor'kovskogo oblastnogo soveta Nauchno-tehnicheskikh
obshchestv.

(Technical societies)

KLIMOV, I.

Hay yields have been doubled. Nauchn i pered.op.v sel'khoz. 9
no.12:58-59 D '59.
(MIRA 13:4)

1. Arkhangel'skaya cpytno-meliorativnaya stantsiya.
(Hay)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

KLIMOV, I.A., kapitan meditsinskoy sluzhby

Diagnosis of lambliasis at the unit level. Voen.med.shur.
no.3:87 '59. (MIRA 12:6)
(GIARDIASIS)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

KLIMOV, I.A.

PMZ-4 unloading and piling conveying machine. Sakh.prom. 33 no.2:
36-37 p '59.
(MIRA 12:3)

1.Penskiy mashinostroitel'nyy zavod.
(Sugar industry--Equipment and supplies)
(Loading and unloading)

KLIMOV, I.A.

Evaluation of the colorimetric and precipitation methods of
determining the proteolytic activity of duodenal juice.'Lab.
delo 8 no.5:24-26 My '62. (MIRA 15:12)

1. Kafedra voyennoy-polevoy terapii (nachal'nik - prof. Ye.B.
Zakrzhevskiy) Voyenno-meditsinskoy ordena Lenjina akademii
imeni S.M.Kirova, Leningrad.
(PROTEASES) (DUODENUM) (COLORIMETRY)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

KLDMOV, I.A.

Malaria in Yemen. Med. paraz. i paraz. bol. 32 no. 5:617-618
8-0'63 (MIRA 16:12)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

KLIKOV, I.A.

Distribution of schistosomiasis in the southwest of the
Arabian Peninsula. Med. paraz. i paraz. bol. 32 no.6:
710-711 N-D '63 (MIRA 18:1)

KATSNEL'SON, B.D., kand. tekhn. nauk; KISEL'GOF, M.L., kand. tekhn. nauk;
KLIMOV, I.I., kand. tekhn. nauk; SHAOALOVA, S.L., kand. tekhn. nauk;
REZNIK, V.A., inzh.

Safety regulations for systems operating on pulverized fuel. Teplo-
energetika 12 no.4:90-93 Ap '65. (MIRA 18:5)

1. Tsentral'nyy nauchno-issledovatel'skiy kotloturbinnyy institut
im. I.I.Pol'sunova, i Vsesoyusnyy ordena Trudovogo Krasnogo Znameni
teplotekhnicheskiy institut imeni Dzerzhinskogo.

KLIMOV, I.I. --

"The Solution of Aluminum in Alkalies." Cand Chem Sci, Moscow State Pedagogical Inst imeni V.I. Lenin, 1 Nov 54. (VM, 20 Oct 54)

Survey of Scientific and Technical Dissertation Defended at USSR Higher Educational Institutions (10)

SOF Sum. No. 481, 5 May 55

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

KLIMOV, I.I. (Kaluga).

Producing silver nitrate from scrap silver. Khim.v shkole 11
no. 42-43 N-D '56. (MLRA 9:12)
(Silver nitrate)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

SOV/137-58-10-21306

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 123 (USSR)

AUTHOR: Klimov, I. I.

TITLE: On the Dissolution of Aluminum in Alkalies (O rastvorenii
alyuminiya v shchelochakh)

PERIODICAL: Uch. zap. Mosk. gos. ped. in-ta, 1957, Vol 99, pp 51-61

ABSTRACT: The rate of the dissolution of A-0 and A-1 grades Al in relation to the concentration of an alkali cation (KOH, NaOH, LiOH, and NH₄OH) was investigated. With an increase in the concentration of the alkali the rate of dissolution increases, attains a maximum, and then decreases. It is shown that the rate of the dissolution of Al is in linear relationship to the electrical conductivity of the alkali. Consequently the cause of the appearance of a maximum on the "rate of dissolution-concentration" curves is closely related to the cause of a maximum on the "electrical conductivity - concentration" curves. A relationship of the rate of dissolution of Al to the concentration of the form $p = a \cdot C^b \cdot e^{-kC}$, is established where p is the rate of dissolution in g/m² hour, C is the concentration of the alkali, and a, b, and k are

Card 1/2

SOV/137-58-10-21306

On the Dissolution of Aluminum in Alkalies

constants. Stirring the alkali solution has practically no effect on the rate of dissolution of Al. Therefore it follows that the diffusion of the products of corrosion of Al in alkalies has no effect on the process of dissolution of the metal. Bibliography: 18 references.

1. Aluminum--Decomposition 2. Alkali solutions--Performance
3. Alkali solutions--Electrical properties

L. A.

Card 2/2

SOV/137-58-11-23098

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 181 (USSR)

AUTHORS: Balezin, S. A. Klimov, I. I.

TITLE: On the Inhibitors of Aluminum Corrosion in Alkalies (Ob ingibitorakh korrozii aljuminiya v shchelochakh)

PERIODICAL: Uch. zap. Mosk. gos. ped. in-ta, 1957, Vol 99, pp 63-65

ABSTRACT: Sulfide (I) and sulfite (II) cellulose alkalies (aqueous extracts from peat) were investigated as possible corrosion-inhibitors in alkalies. It was established that I(extract of 1 ft. of water from 100 g of air dry peat filtered and evaporated to a syrupy concentration) in the amount of 6% at 20°C decreases the rate of dissolution of Al by 30-35 times. 1% of II in an 0.1N NaOH solution completely protects the metal from dissolution. In 1N solution the inhibiting effect is equal to 39.1, in 1N it is 30.3, in 2N solution it slows down the reaction by 5-6 times, and in 3N retards it by 2-3 times. The addition of 0.015% CdSO₄ increases the protective properties of I and II. The mechanics of the action is related to the formation of amorphous films on the metal upon the interaction of aluminates with I. On addition of CdSO₄ a thin but dense film of Cd is formed.

Card 1/1

V. P.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2

DUBOVSKIY, I.Ye., kand.tekhn.nauk; KLIMOV, I.I., kand.tekhn.nauk

Method of calculating dust collectors and dust separators for
dust treatment installations. Energomashinostroenie 6 no.6:21-25
Je '60. (MIRA 15;8)

(Dust collectors)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

BALEZIN, S.A.; KLIMOV, I.I.

Solution of aluminum in alkalis. Izv.vys.ucheb.zav.; khim.i khim.
tekh. 5 no.1:82-86 '62. (MIRA 1514)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni
Lenina, kafedra obshchey i analiticheskoy khimii.
(Aluminum) (Alkalis) (Solution (Chemistry))

28 (1), 28 (5)

3/119/60/000/02/008/015

B014/B014

AUTHORS: Klimov, I. P., Engineer
Fedorov, A. N., EngineerTITLE: Application of a Selsyn for the Measurement of Mechanical Quantities

PERIODICAL: Priborostroyeniye, 1960, Nr 2, pp 19 - 20 (USSR)

ABSTRACT: This article gives a description of the application of a selsyn for the measurement of strip stress in continuously operating strip-rolling mills. The design of such a selsyn was suggested by the Laboratoriya avtomatiki TsNIITMASH (Laboratory of Automation, TsNIITMASH). Figure 2 shows that the selsyn of the type ED-404A is perpendicularly housed within a jacket. Its rotor is actuated when the position of the roll driven by the strip changes (Fig. 1). The resultant alternating voltage is rectified by semiconductors, and is fed into a pointer instrument calibrated in either metric tons or kilograms according to its specific purposes. There are 3 figures.

Card 1/1



KLIMOV, I.S.

Studying the measurement of geometrical quantities in the arithmetic course for the fifth and sixth grade. Uch.sop.Pens.gos.ped.inst.
no.7:59-76 '62. (MIRA 16:7)

(Arithmetic—Study and teaching)

KLIMOV, I.S. (Penza)

Computation of the volume of a figure with the help of Simpson's formula.
Mat. v shkole no.2:30-33. Mr-Ap '63. (MIRA 16:4)
(Series, Taylor's) (Algebra—Study and teaching)

KLIMOV, I.T.; YEREMENKO, V.Ya.

Spectrographic determination of trace elements in natural waters. Part 1: Concentration of Ni, Co, Ag, Cu, V, Sn, Bi, Fe, Pb, Mn by means of sodium diethyldithiocarbamate.
Gidrokhim.mnt. 29:254-263 '59. (MIRA 13:5)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, Novocherkassk.
(Trace elements--Spectra) (Carbamic acid)

માત્રાંશુ

Academy of Music, 2220, Philadelphia Institute
of Pathological Bacteriology, 5, 2222 (Pathobacteriological substances, v. 20)
Rosen, Leo-We AM 8200. 1950. 213 p. Errata slip inserted.
2,000 copies printed.

Bozeman, Montana 59715. *Geodetic Institute*
(University Park).

Editorial Board (male part): R. C. H. M., G. A. Alstein, H. V. Vassilievsky, Demyan, N. V., V. A. Krasnourov, S. S. Krasnourov, N. I. Kirichenko, V. A. Kryzhevich, D. P. Savchenko, N. G. Savchenko, N. S. Tikhonov, N. S. Tikhonov.

GOVERNMENT: This is a collection of 22 articles on the hydrochemical study of rivers and water bodies in the USSR. The author discusses pollution, especially methods of determining the content of microelements in water, and the contents and characteristics of gases, as well as chemical, biological, and organic substances. A brief discussion of the distribution of the last three groups in the USSR is also given, complete to appear to date. No personalities are mentioned. Each article is accompanied by references.

Kazan, A. F., and K. P. Repetushin [Institute of Geirovostroenie].
'Development of the Soviet Institute for the Design and
Planning of Petroleum Industry Establishments in the Far East
Regions, Imperialist Games in the Waters of Petroleum Deposits
in the Far East Regions'.
195

DODD, H. H. [Washington] *Washington Geological Survey Investi-
gations*. Vol. 1. *Geology*. Part I. *Geologic Map of Washington*. Seattle, 1906.

164 *U.S. Bureau of Mines*, U.S. Geological Institute, Report 11. Determination of Nickel-Elements in Natural Waters. Report II. Extraction With Ozone.

165 *U.S. Bureau of Mines*, U.S. Geological Institute, Report 12. Determination of Nickel-Elements in Natural Waters. Report III. Extractions With Chlorine.

166 *U.S. Bureau of Mines*, U.S. Geological Institute, Report 13. Determination of Nickel-Elements in Natural Waters. Report IV. Extractions With Bromine.

<i>Leptosperma</i> (united)	175
<i>Pithecellobium</i> , B. P. and F. S. Mawson - <i>Leptosperma</i> (united) Pithecellobium, B. P. and F. S. Mawson - <i>Melaleuca</i> (united) Georgina Island Pittosporum as <i>G. ciliatum</i> , Kippen - <i>Melaleuca</i> Corallinae Native Elementa in Natural Habitats	177

Lissa, Dr. A. and Dr. H. St. Löffler (Bolzenwitz) -
Bacteriology Institute, Wittenberg - Bacteriological Institute,
Bacteriology Institute, Wittenberg - On account of
Incongruous Organism, either in Bacteriological Reserve

DR. G. V. AND H. P. KRISTENSEN Laboratory for Microbiology
Department of Chemical Technology, Royal Institute of Technology - Stockholm - Sweden - Director of the Sanitary Engineering and Applied Research Section of the Research Institute Administration of the Ministry of Health, Stockholm, Sweden. Chemicals in the Control of Organic Matter in Samples of River Water After
Periodic Storage

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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723120013-2"

KLIMOV, I.T.; YEREMENKO, V.Ya.

Spectrographic determination of trace elements in natural waters.
Report No.2: Extraction with cupferron. Gidrokhim. mat. 30:170-
174 '60. (MIRA 13:9)

1. Gidrokhimcheskiy institut AN SSSR, Novocherkassk.
(Water--Analysis) (Trace elements) (Cupferron)

KLIMOV, I. T.; YEREMENKO, V. Ya.

Spectrographic determination of trace elements in natural waters.
Report No.3: Extraction with 8-hydroxyquinoline (oxine). Gidro-
khim. mat. 30:175-176 '60. (MIRA 13:9)

1. Gidrokhimicheskiy institut AM SSSR, Novocherkassk.
(Water--Analysis) (Trace elements) (Quinolinol)

PESENKO, N.G.; KLIMOV, I.T.

Amount of heavy metals in the Krasenny Torets and Northern Donets
during irrigation periods. Gig. i san. 25 no.3:104-105 Mr '60.
(MIRA 14:5)

1. Iz Gidrokhimicheskogo instituta Akademii nauk SSSR.
(DONETS VALLEY—WATER—POLLUTION) (METALS)

KLDMOV, I.T.; YEREMENKO, V. Ya.

Spectrographic determination of trace elements in natural waters.
Report No.43 Group determination of Ni, Co, Ag, Cu, V, Sn, Mo,
Ti, Al, Hg, Te, Pb, and Mn following their concentration by the
use of sodium diethyldithiocarbamate and 8-oxyquinolines. Gidro-
khim. mat. 31:191-196 '61. (MIRA 14:3)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g. Novocherkassk.
(Water--Analysis) (Trace elements) (Spectrochemistry)

KLIMOV, I. T., Cand. Chem. Sci. (diss) "Chemical-Spectral
Determination of Micro-elements (Heavy Metals) in Natural Waters
with Use of Concentration of Extractions." Novocherkassk, 1961,
11 pp (Hydro-chem. Instit.) 180 copies (KL Supp 12-61, 266).

KLIMOV, I.T.

Separation of large quantities of Fe^{III} from some metals in micro-
gram concentrations. Oidrokhim.mat. 34:128-130 '61. (MIRA 15:2)

1. Oidrokhimicheskiy institut AN SSSR, Novocherkassk.
(Iron) (Extraction (Chemistry))

KLIMOV, I.T.

Spectrochemical method for group determination of the trace elements Ni, Co, Ag, Cu, V, Sn, Mo, Bi, Pb, and Mn in bottom deposits and analogical materials. Gidrokhim.mat. 34:131-137 '61.
(MIRA 15:2)

1. Gidrokhimicheskiy institut AN SSSR, Novocherkassk.
(Trace elements) (Sediments (Geology)--Analysis)

KLIMOV, I.T., mladshiy nauchnyy sotrudnik; FESENKO, N.G., starshiy nauchnyy sotrudnik, kand.khimicheskikh nauk

Pollution of acid waters by heavy metals in the coal mines of the Donets Basin. Gig. 1 san. 26 no.5:97-98 My '61. (MIRA 15:4)

1. Iz Gidrokhimicheskogo instituta AN SSSR.
(DONETS BASIN—WATER—POLLUTION) (MINE WATERS)

S/081/62/000/020/008/040
B166/B186

AUTHOR: Klimov, I. T.

TITLE: Contribution to the question of separating large quantities
of Fe³⁺ from certain metals in microgram concentrations

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1962, 91; abstract
20D30 (Gidrokhim. materialy, v. 34, 1961, 128-130)

TEXT: It was found that Fe³⁺ can be extracted most efficiently with
methyl isobutyl ketone. Extraction from a 6N HCl solution yields Sn, Mo
and V in addition to iron, but the alkali and alkali-earth metals, Al and
Ti are not extracted, nor are Ni, Co, Ag, Cu, Bi, Pb or Mn from the heavy
metals. Diethyl ether, normally used for Fe extraction, can advantageously
be replaced by a mixture of diethyl ether and isoamylacetate (1 : 4). Used
organic fluids can easily be regenerated and many heavy metal impurities
removed efficiently from Fe³⁺ by re-extraction with a 1N HCl solution.
[Abstracter's note: Complete translation]

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CIA-RDP86-00513R000723120013-2

DUMCHUS, M.V.; KLIMOV, I.T.

Determination of the wear of friction pairs by means of spectral analysis of spent oil. Sbor. nauch. trud. ELNII 3:208-211 '63.
(MIRA 17:4)

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CIA-RDP86-00513R000723120013-2"

ZHAVCHONKINA, T.K.; SKOPINTSEV, R.A.; KLIMOV, I.T.

Chemical and spectral methods for determining trace element
series in seawaters. Okeanologiya 4 no.2:205-212 '64.

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Extraction of Pelli by mixtures of cyclohexanone with isoamyl acetate, chloroform, carbon tetrachloride, and bromobenzene.
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I. Gidrokhimicheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR, Novocherkassk.

DATSKO, V.G., KLTMOV, I.T., KRASNOV, V.N.

Content of some heavy metals in the waters and silts of the
Tsaimlyansk Reservoir. Gidrokhim.mat. 36:50-55 '64.

(MIRA 18:11)

I. Gidrokhimicheskiy institut, Novocherkassk, Submitted
October 24, 1961.

ZALESSKIY, Vladimir Isaiifovich, prof.; ZIMIN, A.I., doktor tekhn.
nauk, prof., retsenzent; KLIKOV, I.V., doktor tekhn.
nauk, prof., retsenzent

[Equipment of forging power-pressa shops] Oborudovanie
kuznachno-pressovykh tschekhov. Moskva, Vysshiaia shkola,
1964. 598 p. (MIRA 18:1)

1. Kafedra mashin i tekhnologii obrabotki metallov davle-
niem Moskovskogo vysshego tekhnicheskogo uchilishcha (for
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